

# memorandum

Ohio Field Office  
West Valley Demonstration Project

DATE: October 21, 2002  
SUBJECT: West Valley Demonstration Project (WVDP) August 2002 Progress Report

TO: Mark E. Rawlings  
DOE-HQ, EM-31, 2169/CLOV

Reference: Letter WD:2002:0545 (84903), J. L. Little to A. C. Williams, "WVDP Progress Report – August – 2002," dated October 11, 2002

Attached is the WVDP Progress Report for August 2002. Any questions regarding the information contained therein can be directed to Lisa M. Maul at (716) 942-2163.



Alice C. Williams, Director  
West Valley Demonstration Project

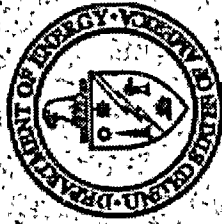
Attachment: Referenced Letter

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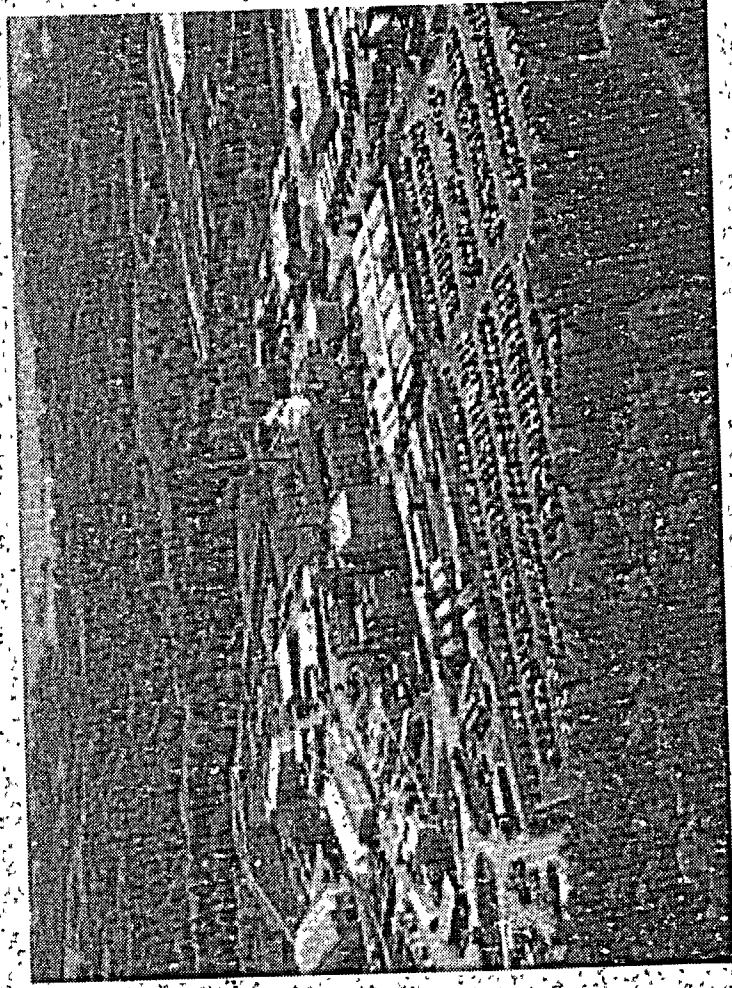
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# West Valley Demonstration Project Progress Report

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August 2002

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West Valley Nuclear Services Company

# **West Valley Demonstration Project Progress Report August 2002**

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# PROGRESS REPORT

Report No. 238

Reporting Period: August 2002

**CONTRACT TITLE AND NUMBER:** West Valley Demonstration Project  
Operating Contract  
DE-AC24-81NE44139

**CONTRACTOR NAME:** West Valley Nuclear Services Company  
10282 Rock Springs Road  
West Valley, New York 14171-9799

**CONTRACT PERIOD:** October 1, 1994 - September 30, 2002

**CONTRACT OBJECTIVE:** The 1980 West Valley Demonstration Project (WVDP) Act (Public Law 96-368) states that the Secretary of the Department of Energy (DOE) shall carry out a high level radioactive waste management demonstration project at the Western New York Nuclear Service Center (WNYNSC) in West Valley, New York, for the purpose of demonstrating solidification techniques which can be used for preparing high level radioactive waste (HLW) for disposal. The Act states that:

1. The Secretary shall solidify, in a form suitable for transportation and disposal, the HLW at the Center by vitrification or by such other technology which the Secretary determines to be most effective for solidification.
2. The Secretary shall develop containers suitable for the permanent disposal of the HLW solidified at the Center.
3. The Secretary shall, as soon as feasible, transport, in accordance with applicable law, the waste solidified at the Center to an appropriate Federal repository for permanent disposal.
4. The Secretary shall, in accordance with applicable licensing requirements, dispose of low level radioactive waste (LLW), and transuranic waste (TRU) produced by solidification of HLW under the Project.
5. The Secretary shall decontaminate and decommission (D&D) - (A) the tanks and other facilities of the Center in which the HLW solidified under the project was stored, (B) the facilities used in the solidification of the waste, and (C) any material and hardware used in connection with the project, in accordance with such requirements as the Commission (NRC) may prescribe.

West Valley Nuclear Services Company (WVNSCO), as DOE's management and operating contractor under a performance-based contract, will perform day-to-day activities at the existing WNYNSC site, maintain the existing facilities to DOE standards, and will plan, design, construct, execute decontamination and decommissioning (D&D) projects, and operate the solidification system in accordance with DOE's directives.

Phase I of the Project's vitrification campaign commenced in 1996 and completed in 1998, ahead of schedule and under budget. The majority of the liquid HLW was processed and vitrified in canisters that are currently being maintained in on-site storage. The remaining sludge was treated through the vitrification facility and completed in FY 2001. In FY 2002, vitrification operations continue to support additional tank washing activities to remove alpha-transuranic fixed contamination, while preparations are made for melter shutdown and vitrification facility deactivation.

The actions to fulfill the DOE's closure / completion responsibility per the WVDP Act will be determined by finalization of two Environmental Impact Statements (EIS) - the first being Waste Management, and the second one for Decommissioning and / or Long-Term Stewardship.

## NARRATIVE HIGHLIGHTS AND ASSESSMENT

### Overall Assessment Accomplishments/Status

At the end of August, the melter is in idle mode. The 275th and final HLW canister produced overall and the thirteenth in fiscal year 2002, has been completed. All temperatures are within normal bounds; power and cooling parameters are normal. The melter has been reconfigured for the evacuated canister. Flushing of key HLW tanks and vessels has been completed. WVNSCO is progressing toward melter shutdown and evacuated canister deployment on a schedule which supports the September 30, 2002 milestone date.

WVNSCO had one milestone scheduled in August. The milestone: hardware modifications for sodium-bearing wastewater processing, was completed on schedule. WVNSCO has seven milestones scheduled for completion in September.

WVNSCO received DOE authorization to initiate cleanup operations in the General Purpose Cell (GPC) on August 2, 2002. The area under the Scrap Removal Room (SRR) hatch was cleared of debris and the contamination control table was lowered into place. The first drum was lowered and actual packaging operations began on August 23. In preparation for future remote operations in the SRR the camera assembly in the SRR manipulator port was removed and installed over the GPC B window. Removal of the camera will allow a manipulator to be installed in the port.

The Remote Handled Waste Facility (RHWF) design/build subcontract is approximately 45% complete at the end of August. The subcontractor safe work hours have increased to over 47,000 hours since the last injury. Vendor facilities where the shield doors and programmable logic controller are being fabricated were visited by joint teams of WVNSCO, subcontractor and DOE employees. Discussions were mainly technical, but evidence of solid progress was observed. Engineering for the utilities was completed and a procurement strategy has been developed. The first pricing is expected in mid-September. Engineering of pavements and roadways is on schedule to complete in September.

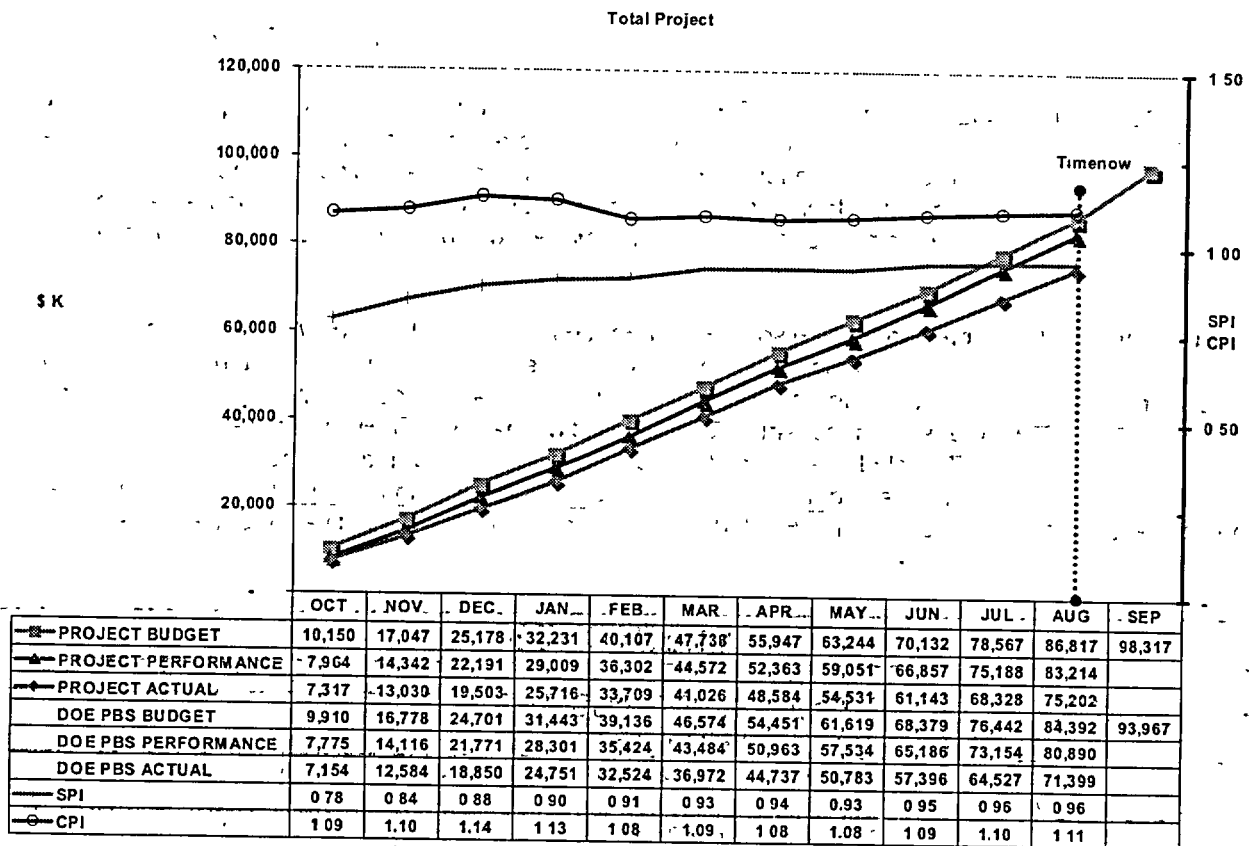
The external peer review of the Facility Characterization Management Plan (FCMP) was conducted and a report provided to the site. A draft action plan was provided to the peer review team on Thursday, August 29<sup>th</sup>. The next conference call will be held on Thursday September 5 to discuss any comments on the proposed actions.

The Decommissioning and/or Long-term Stewardship Environmental Impact Statement schedule is being revised based on comments received from the New York State Energy Research and Development Authority (NYSERDA), the U.S. Nuclear Regulatory Commission (NRC), and New York State Department of Environmental Conservation (NYSDEC).

On August 16, 2002, comments from the U.S. Nuclear Regulatory Commission (NRC), U.S. Environmental Protection Agency (EPA), and the New York State Department of Environmental Conservation (NYSDEC), were received on the Notice of Intent (NOI) for the Decommissioning and/or Long-term Stewardship Environmental Impact Statement. DOE has reviewed the NOI and is incorporating modifications where applicable.

The Preliminary Waste Management Environmental Impact Statement has been revised to incorporate comments received from the U.S. Department of Energy (DOE) Office of Environmental Management, Office of General Counsel, and Office of Environmental Safety and Health, and is currently being recirculated at DOE Headquarters for final approval.

The Spent Nuclear Fuel (SNF) shipping casks have been sampled, resealed, leak-tested, and backfilled with nitrogen to atmospheric pressure. This completes all physical work on the casks to ensure their continued integrity while staged for shipment to INEEL.



WVNSCO performed a management self-assessment of our readiness to begin transfer of treated pool water from the Fuel Receiving and Storage Area (FRS) to the interceptor on August 28, 2002. On August 29, 2002, all four prestart open items were completed. Draining of the pool to the interceptor was initiated on August 30, 2002.

There was one Occupational Safety and Health Act (OSHA) recordable incident in August. The WVDP's calendar year-to-date Total Recordable Case Rate (TRC) is 2.27.

There was one reportable clothing contamination but no reportable skin, nasal, or internal contaminations for WVDP radiological workers in August 2002.

### **Assessments/Actions**

The negative schedule variance of \$3.6M for the Project is primarily due to the delay in shipping the spent nuclear fuel to Idaho National Engineering and Environmental Laboratory (INEEL), as well as delays in procurements and subcontractor services. Activities contributing to the schedule variance are not adversely affecting the schedule completion of FY02 goals and objectives.

The cost variance for the Project increased in August from positive \$6.9M in July to a positive \$8.0M. This is primarily due to savings resulting from having less WVNSCO labor than originally planned to support FY2002 project activities. Also contributing to the positive cost variance are savings realized on an intermodal waste shipment, less subcontractor services expenses, lower than average expenses for snow removal, control of HVAC expenses, eliminating duplicate fire protection inspection/testing, and less support required for routine site operations and safe storage of waste.

Project performance to date through August is 89% of work planned, 85% of work performed and 77% of work costed.

## PBS OH-WV-01(LT): HLW Vitrification & High Activity Waste Processing

**PBS OH-WV-01(LT) Scope** -The scope of PBS OH-WV-01(LT) addresses activities required to comply with the mandates of the WVDP Act which states that, among other responsibilities, the Secretary of the Department of Energy shall solidify, in a form suitable for transportation and disposal, the HLW at the Center by vitrification or such other technology which the Secretary determines to be most effective for solidification, and develop containers suitable for the permanent disposal of the HLW solidified at the Center.

The decision to utilize vitrification as the solidification process for the HLW at the WVDP was made in 1982. In 1988, the vitrification formula which complied with the Waste Acceptance Criteria for long term disposal in the Federal Repository for the HLW at the WVDP was approved. Facilities to pretreat, mobilize and vitrify the HLW were designed, constructed and tested and radioactive HLW processing began in July 1996. PBS-OH-WV-01(LT) includes activities for liquid HLW processing and tank heel residual processing, tank cleaning to remove fixed contamination, and vitrification operations support. Vitrification operations are expected to continue through FY 2002, supporting flushing and deactivation of the system.

MILESTONES			
Description	Scheduled	Completed	Status
<b>HLW-1: REMOVAL OF MOBILIZATION PUMP FROM M-1 RISER AND INSTALLATION OF THIRD MAST TOOL DELIVERY SYSTEM</b>			
A Remove Mobilization Pump from M-1 Riser of HLW Tank 8D-2, and package/store it with the other pumps removed from the waste tank farm	11/30/01	11/01/01	
B Complete testing, checkout, operator training and installation of Mast Tool Delivery System (MTDS) in M-1 riser of Tank 8D-2.	01/19/02	01/17/02	
C: Initiate characterization activities from the Tank 8D-2 M-1 riser to include the beta-gamma detector deployment. Complete at least 3 beta-gamma scans of unwashed and partially washed areas from M-1 riser.	01/31/02	01/30/02	
<b>HLW-2: OBTAIN PRE AND POST WASH BURNISHING SAMPLES</b>			
A: Complete Pre and Post wash beta-gamma detector deployment	11/16/01	11/15/01	
B Provide documented results of the Tank 8D-2 M-4 and M-7 pre and post wash burnishing samples and beta-gamma scans	01/31/02	01/31/02	
<b>HLW-3: HLW FLUSHING ACTIVITIES</b>			
Complete an acid flush of the Vitrification Waste Header, and an acid soak of Tank 8D-4 per the HLW Processing Systems Flushing Operations Run Plan	01/31/02	01/31/02	
<b>HLW-4: COMPLETE LIQUID WASTE TREATMENT SYSTEM (LWTS) EVAPORATOR FLUSH.</b>	05/15/02	04/30/02	
<b>HLW-5: COMPLETE INSTALLATION OF FLUSHING EQUIPMENT AND COMPLETE MINIMUM OF TWO FLUSHES OF VITRIFICATION FACILITY IN-CELL PROCESS PIT.</b>	05/31/02	05/06/02	
<b>HLW-6: COMPLETE HLW VITRIFICATION OPERATIONS</b>			
A. Deployment of Evacuated Canister	09/30/02		On Schedule
B. Complete HLW Vitrification Operations	09/30/02		On Schedule
<b>HLW-7: HARDWARE MODIFICATIONS FOR SODIUM-BEARING WASTEWATER PROCESSING</b>	08/31/02	08/30/02	
<b>HLW-8: INSTALL EQUIPMENT AND FLUSH MELTER FEED HOLD TANK (MFMT)</b>	08/31/02	07/30/02	

## VITRIFICATION DEACTIVATION PROJECT

### **HLW-6A**

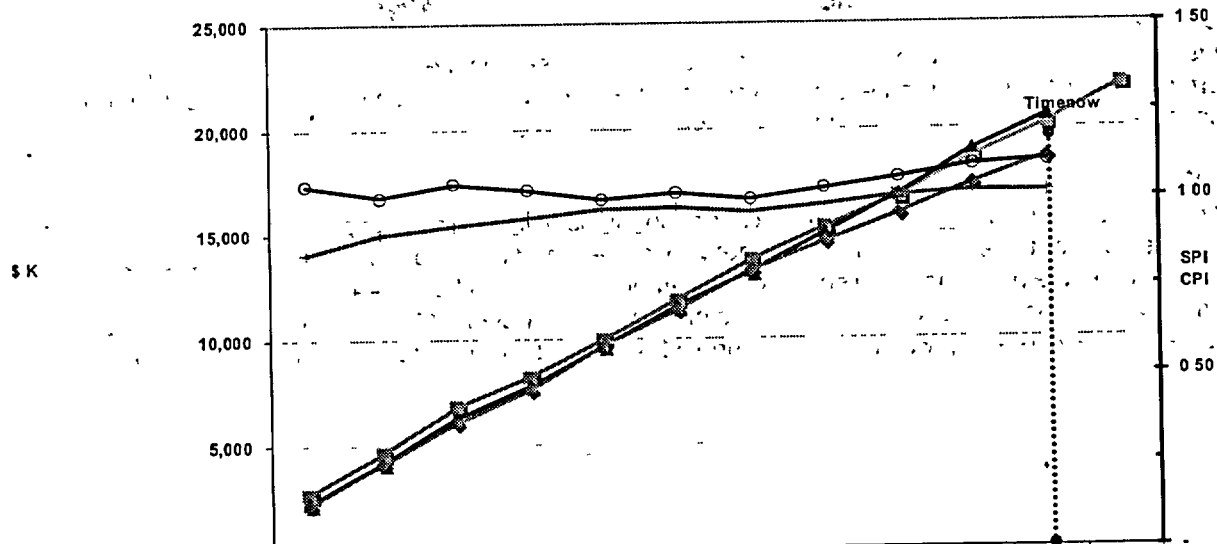
Flushing of key HLW tanks and vessels has been completed and the final HLW canister pour has been performed. WVNSCO is progressing toward melter shutdown and evacuated canister deployment on a schedule which supports the September 30, 2002 milestone date.

### **HLW-7**

This milestone included the design, fabrication, and vendor-testing of specialized hardware that serve as end-effectors for the existing remote tool delivery system and its remote arm, as well as the new permanent submersible pump and its discharge attachment. Letter WD:2002:0448, D. C. Meess to A. C. Williams, "Completion of FY2002 Contract Milestone HLW-7; Hardware Modifications for Sodium-Bearing Wastewater Processing," was issued on August 28, 2002, documenting completion of this milestone.



PBS 1 - (OH-WV-01/LT) HLW VITRIFICATION & HIGH ACTIVITY WASTE PROCESSING



	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
PROJECT BUDGET	2,665	4,618	6,820	8,237	9,971	11,838	13,708	15,283	16,730	18,600	20,211	22,061
PROJECT PERFORMANCE	2,247	4,149	6,299	7,786	9,658	11,513	13,156	14,988	16,828	18,947	20,526	
PROJECT ACTUAL	2,165	4,128	6,044	7,606	9,702	11,346	13,210	14,584	15,893	17,328	18,573	
DOE PBS BUDGET	2,559	4,466	6,561	7,824	9,494	11,293	13,056	14,599	15,985	17,746	19,305	21,092
DOE PBS PERFORMANCE	2,159	4,012	6,060	7,396	9,196	10,984	12,530	14,318	16,079	18,077	19,606	
DOE PBS ACTUAL	2,110	4,105	5,980	7,455	9,447	10,255	12,186	13,511	14,847	17,381	18,721	
SPI	0.84	0.90	0.92	0.95	0.97	0.97	0.96	0.98	1.01	1.02	1.02	
CPI	1.04	1.01	1.04	1.02	1.00	1.01	1.00	1.03	1.06	1.09	1.11	

**PBS OH-WV-01(LT) Assessment/Actions**

PBS-OH-WV-01LT has a negligible cost and schedule variances through August.

At the end of August, performance to date is 92% of work planned, 93% of work performed and 84% of work costed.

## **PBS OH-WV-02(LT): Site Transition, Decommissioning & Project Completion**

**PBS OH-WV-02(LT) Scope** -The scope of PBS OH-WV-02(LT) addresses activities required to comply with the mandates of the WVDP Act which states that, among other responsibilities, the Secretary of the Department of Energy shall, as soon as feasible, transport, in accordance with applicable law, the waste solidified at the Center to an appropriate Federal repository for permanent disposal. Additionally, the Secretary shall, in accordance with applicable licensing requirements, dispose of low level radioactive waste (LLW), and transuranic waste (TRU) produced by solidification of HLW activities. Finally, the Secretary shall decontaminate and decommission (D&D) - (A) the tanks and other facilities of the Center in which the HLW solidified under the project was stored; (B) the facilities used in the solidification of the waste, and (C) any material and hardware used in connection with the project, in accordance with such requirements as the Commission (NRC) may prescribe.

Project efforts in PBS OH-WV-02(LT) focus on activities required to transition the site from HLW vitrification operations through decontamination and final decommissioning of Project facilities. These activities include completion of the National Environmental Policy Act (NEPA) process to determine final facility closure activities (Environmental Projects), construction of the Remote Handled Waste Facility (RHWF) to provide the Project capability to characterize, sort, segregate and repackage high activity waste for disposal (Remote Handled Waste Project), LLW storage and shipping for off-site disposal (Waste Disposal Projects), Head End Cell (HEC) equipment installation / upgrades and HEC Spent Fuel Debris Retrieval (Facility Decontamination Projects), and development of alternative on-site HLW canister storage capability.

During execution of all provisions of the WVDP Act, the Project is committed to continuing safe storage of the transuranic (TRU) waste, and HLW canisters, as well as safe storage and waste management of the mixed low-level waste (MLLW) and low-level waste (LLW).

## DECONTAMINATION OF PROJECT FACILITIES

MILESTONES			
Description	Schedule	Complete	Status
<b>FC-1: GENERAL PURPOSE CELL (GPC) AND PROCESS MECHANICAL CELL (PMC) INFRASTRUCTURE</b>			
Complete removal and packaging for disposal of the old crane/hardware, and installation of the Scrap Removal Room (SRR) replacement crane, including turnover to operations	01/31/02	01/20/02	
Complete Standard Operating Procedures, operator training materials and complete operator training			
<b>FC-3: COMPLETE PREREQUISITES AND INFRASTRUCTURE IMPROVEMENTS REQUIRED FOR INITIAL OPERATIONS ACTIVITIES IN PREPARATION FOR DECONTAMINATION OF GENERAL PURPOSE CELL.</b>			
Complete prerequisites and infrastructure improvements required for initial operations in the GPC.	04/30/02	04/29/02	
<b>FC-4: COMPLETE REFURBISHMENT OF GPC SHIELD WINDOW A, INSTALLATION AND CHECK OUT OF MANIPULATOR RAIL SYSTEM FOR WINDOW A, AND WVNSCO READINESS ASSESSMENT.</b>			
A- Complete refurbishment of Shield Window 2M-6-A in the General Purpose Cell and install and load test the manipulator rail system over the 2M-6-A shield window	05/31/02	05/29/02	
B- Complete WVNS Readiness Assessment (RA) and WVNS-identified pre-start open items	05/31/02	05/24/02	
<b>FC-7: REMOVAL AND PACKAGING OF RAM TABLE FROM PROCESS MECHANICAL CELL (PMC).</b>			
Complete the removal and packaging of the RAM table and 20 drums of debris from the PMC	04/30/02	04/30/02	
<b>FC-8: COMPLETE START-UP AND TURNOVER TO OPERATIONS OF SCRAP REMOVAL ROOM (SRR) AIRLOCK</b>	07/30/02	07/30/02	
<b>FC-9: PERFORM DECONTAMINATION OF GENERAL PURPOSE CELL (GPC)</b>	09/30/02		On Schedule

### FC-9

WVNSCO received DOE authorization to initiate cleanup operations in the GPC on August 2, 2002. A pre-job briefing was held on August 6. The area under the SRR hatch was cleared of debris and the contamination control table was lowered into place. The first drum was lowered and actual packaging operations began on Friday August 23. Packaging of the first two drums was completed.

In preparation for future remote operations in the Scrap Removal Room the camera assembly in the SRR manipulator port was removed and installed over the GPC B window. Removal of the camera will allow a manipulator to be installed in the port. Check-out of the remote drum counter was completed and the unit installed in the SRR. Checkout of the remote 55 gallon drum lid installation equipment and drum over-packing operations were conducted in the VTF with the results being incorporated into the final designs of the equipment.

## WASTE MANAGEMENT

### WASTE DISPOSAL PROJECTS

**Scope:** Waste Disposal Projects include, but are not limited to, the proper packaging, handling, storing, tracking and shipment of processed low-level radioactive waste, mixed waste, hazardous waste, industrial and sanitary waste. This includes compliance with applicable rules, regulations and administrative controls in the performance of the above activities. Waste disposal projects include disposition of Low Level Waste Treatment Facility (LLWTF) dewatered resin, soil sorting and/or consolidation, waste compaction of Dry Active Waste, and waste minimization.

MILESTONES			
Description	Schedule	Complete	Status
<b>LL-1: LOW LEVEL WASTE SHIPMENT/DISPOSAL</b>			
Ship and dispose of 100% (16,000 cubic feet) of historical annual generation of LLW.	12/31/01	12/03/01	
<b>WM-1: TRU WASTE PROGRAM</b>			
Complete the development of a WVDP TRU Waste Program	05/31/02	05/29/02	
<b>WM-2: SHIP WASTE GENERATED FROM FRS DECONTAMINATION PROJECT</b>			
	09/30/02		TBD

### **WM-2**

Work continues in preparation for the upcoming shipments to the Nevada Test Site of 19 containers filled with Fuel Receiving and Storage waste. Inspection and loading of has begun. The container lid rubber seals will be replaced prior to shipment. Five trailers loaded with a total of nine FRS boxes are tentatively scheduled for shipment to NTS on Friday, September 20, 2002. Other challenges related to changing contact dose rates are under investigation. The outcome of this investigation will determine the final shipment decision.

## **REMOTE-HANDLED WASTE FACILITY (RHWF) PROJECT**

**Scope:** Implementation of site remote-handled (RH) waste activities include all activities necessary to precharacterize, analyze, sample, and inspect RH wastes. Evaluation of options for preparing RH waste for disposal, including, but not limited to, design, fabrication, testing and operation of a Remote-Handled Waste Facility (RHWF) is included. Also included in the scope is evaluation of new state-of-the-art cutting and decontamination capabilities, and evaluation of transportation options associated with off-site shipping of RH waste.

**Status:** The design/ build subcontract is approximately 45% complete at the end of August.

The subcontractor safe work hours have increased to over 47,000 hours since the last injury. There have been no injuries since last fiscal year. Preventing strains continues to be the focus of safety briefings and work planning efforts. Routine environmental and safety reviews conducted during the month did not identify any significant positive or negative findings. There is one groundwater monitoring well that is no longer of use because the grade on construction site was adjusted. This well will be removed at the same time concrete is placed for the foundations and slabs around the building. The hole must be grouted.

Corrective actions addressing the DOE surveillance of subcontractor activities and a joint DOE/WVNSCO audit of the project are partially completed and should be finished in late September or early October. The areas where actions are still incomplete involve nonconformance report reviews, field change reviews and posting of changes on drawings. No findings were identified during WVNSCO surveillance reviews of receiving inspections, weld repair documentation and the crane rail fusion process. Some suggestions were provided to the subcontractor regarding documentation of pre-requisite activities following a review of the work package for installation of the crane rail.

The subcontractor identified approximately 800 square feet of Stainless Steel liner plate that was not the correct thickness. Ten gauge thick plate was installed rather than the 3/16" thick plate that was required. The disposition of the subcontractor non-conformance report is expected in late September or early October. Installation of the remaining liner plates and liquid penetrant examination of other welds continued in the Buffer Cell and the Work Cell. Repairs started. Testing will follow.

Twice monthly meetings were started with subcontractor quality assurance representatives to review upcoming work priorities and inspection points. These meetings are expected to allow us to better coordinate WVNSCO surveillance reviews with the subcontractor.

Vendor facilities where the shield doors and programmable logic controller are being fabricated were visited by joint teams of WVNSCO, subcontractor and DOE employees. Discussions were mainly technical, but evidence of solid progress was observed.

The construction site was brought closer to its final grade. Some topsoil was staged on the site. The crane rail was lifted into position and fused. It should be attached to the sole plates over the course of the next month. Interior lighting installation is continuing. The second set of precast floor sections is curing. Forms for the next set will be built in September. Concrete placement will continue over the course of the next few months. Steel platforms and the waste water transfer pumps were delivered. Other field work continues to be limited because suppliers have not been able to deliver equipment earlier than was scheduled, though several items are scheduled for delivery in September. Fabrication of a number of pipe spools is underway.

The subcontractor team continued engineering of logic and control drawings. Preparation of fabrication drawings and other vendor submittals for equipment are continuing. Shipment of waste water tanks was delayed and is forecast for September.

Lower-tier subcontractors responsible for supplying the Work Cell cranes and manipulators resolved issues which delayed crane fabrication. The subcontractor has contracted with an alternate supplier and technical discussions are underway to determine if the system proposed by the new supplier can be

substituted for the existing design.

Requests for adjustment due to delays and final design review changes were settled in July. An initial round of DOE-WV comments were incorporated and the package was transmitted to other DOE authorities for review.

Engineering for the utilities was completed and a procurement strategy has been developed. The first pricing is expected in mid-September. Engineering of pavements and roadways is on schedule to complete in September. Proposals were received for the shielded forklift. Technical evaluations are underway to confirm the offers were responsive. The first status report leading to delivery of the Documented Safety Analysis was received. Meetings in September will clarify some elements of the design and resolve schedule concerns. Requisitions were prepared for the wall-mounted telemanipulators, the sanitary sewer line and the remaining utilities.

Functional requirements for the In-Situ Object Counting System were prepared, as was a revised Fire Hazards Analysis. Both are being reviewed and should be approved in September. The Design Traveler for the Receiving Area Roller/ Conveyor was approved. Calculations for the support structure for the Roller/ Conveyor and the pallets that rest inside it are nearly complete, which will lead to development of the purchase requisition for these items. Work on the Standard Waste Acceptance Packages for each of the waste streams continues. Procedure EP-11-001, Start-up Test Control, was also revised.

### **CHARACTERIZATION PROJECT**

**Scope:** The Facility Characterization Project will update the radiological inventories for the High Level Waste Tanks, the Vitrification Facility and the Process Building for use with performance assessment analysis.

<b>MILESTONES</b>			
Description	Schedule	Complete	Status
<b>CP-1: DEVELOP PLAN FOR RADIOLOGICAL CHARACTERIZATION OF THE VITRIFICATION FACILITY, WASTE TANK FARM, AND MAIN PLANT PROCESS BUILDING.</b>			
Develop a Management Plan for the characterization of the Vitrification Facility, the Waste Tank Farm and the Main Plant Process building and submit to DOE-OH/WVDP	05/15/02	05/14/02	
<b>CP-2: VALIDATE THE RADIOISOTOPE INVENTORY ESTIMATE FOR THE MINIATURE CELL IN THE MAIN PLANT PROCESSING BUILDING.</b>	05/31/02	05/30/02	
<b>CP-3: FINALIZE FACILITY CHARACTERIZATION MANAGEMENT PLAN (FCMP)</b>			
A. Complete External Peer Review of the FCMP	09/30/02		On Schedule
B. Complete Characterization Activities	09/30/02		On Schedule

#### **CP-3**

The external peer review was conducted the week of August 19<sup>th</sup> and a report provided to WVNSCO. A draft action plan was provided to the peer review team on Thursday, August 29<sup>th</sup>. The next conference is scheduled for Thursday September 5 to discuss any comments on the proposed actions.

## **SAFE SITE OPERATIONS**

### **ENVIRONMENTAL RESTORATION PROJECTS**

**Scope:** The primary focus of Environmental Restoration Projects is the management of the National Environmental Policy Act (NEPA) process associated with completion of the WVDP and closure or long-term management of the Western New York Nuclear Service Center (WNYNSC). This effort also identifies scopes for the site disposition implementation plan and the development of end states for disposition of various facilities such as support stabilization and closure of land based units at the WVDP, including analysis and engineering to address the north plateau radioactive groundwater plume.

### **ENVIRONMENTAL IMPACT STATEMENT (EIS)**

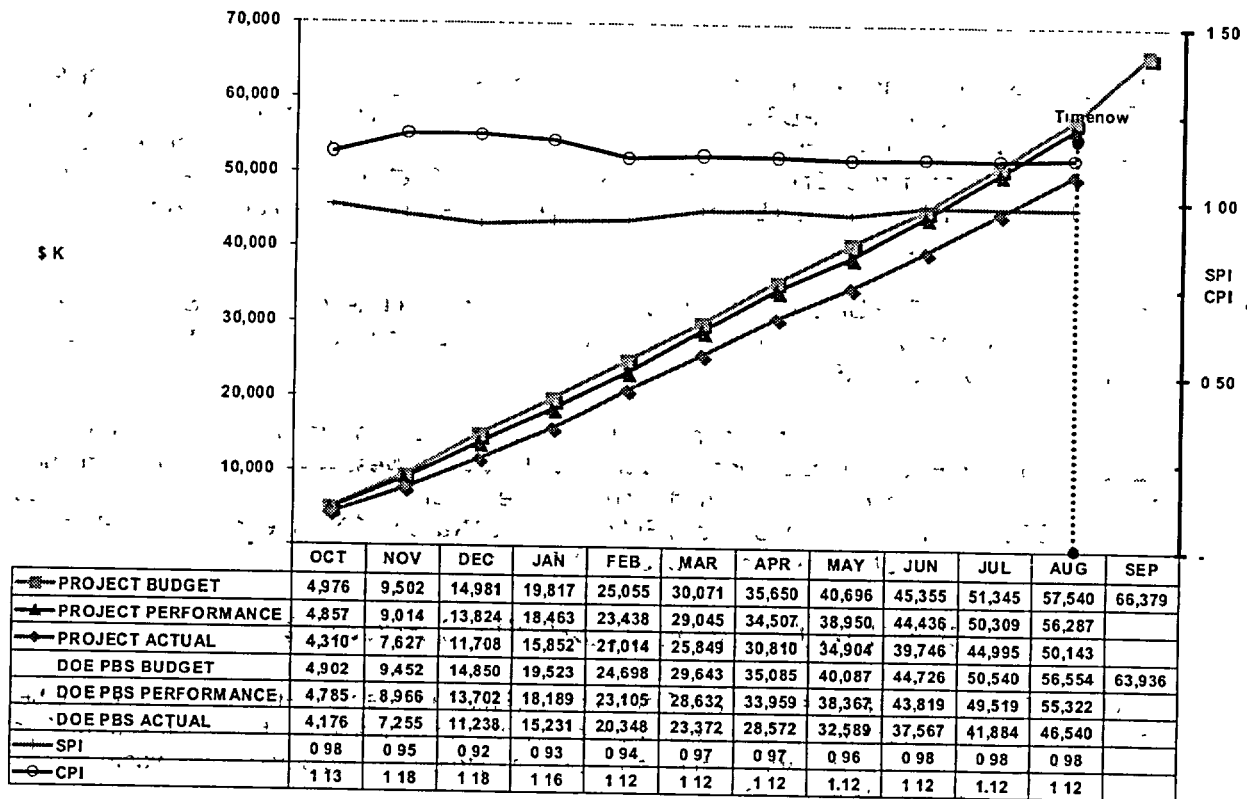
On August 16, 2002, comments from the U.S. Nuclear Regulatory Commission (NRC), U.S. Environmental Protection Agency (EPA), and the New York State Department of Environmental Conservation (NYSDEC), were received on the Notice of Intent (NOI) for the Decommissioning and/or Long-term Stewardship Environmental Impact Statement. DOE has reviewed the NOI and is reviewing the changes. Following internal review, DOE will be working with New York State Energy Research and Development Authority (NYSERDA) and the Regulators on how comments were resolved and publish the NOI.

The Preliminary Waste Management Environmental Impact Statement has been revised to incorporate comments received from the U.S. Department of Energy (DOE) Office of Environmental Management, Office of General Counsel, and Office of Environmental Safety and Health, and is currently being recirculated at DOE Headquarters for final approval.

### **MILESTONES**

Description	Schedule	Complete	Status
<b>SAR-1: CONSOLIDATED DOCUMENTED SAFETY ANALYSIS.</b>			
A consolidated Documented Safety Analysis, reviewed and approved by the WVNS Radiation and Safety Committee, is transmitted via letter to DOE-OH/WVDP requesting review and approval.	05/31/02	05/29/02	

PBS 2 - (OH,WV-02LT) SITE TRANSITION, DECOMMISSIONING & PROJECT COMPLETION



### PBS OH-WV-02LT Assessment/Actions

PBS-OH-WV-02LT has experienced a negative schedule variance of \$1.3M through August due to delay of procurements, deliveries and subcontractor services. Currently, these delays are not impacting completion of FY 02 goals and objectives.

The positive cost variance of \$6.1M is a result of a savings realized from utilizing less WVNSCO labor than originally planned to support project activities and savings resulting from an intermodal waste shipment as well as less than planned costs associated with subcontractor support. In particular, the fire protection, inspection and testing schedules were realigned/combined which resulted in elimination of duplicate and unnecessary testing; lower expenses for subcontractor snow removal; control of HVAC subcontractor expenses; management of miscellaneous procurements and repairs.

At the end of August, performance to date is 87% of work planned, 85% of work performed and 76% of work costed.



## **PBS OH-WV-03(LT): SPENT NUCLEAR FUEL**

**PBS OH-WV-03LT Scope** - The Department of Energy is responsible for 125 spent nuclear fuel (SNF) assemblies at the site. The scope of PBS OH-WV-03 (LT) addresses activities required to comply with the mandates of the Agreement between the New York State Energy Research and Development Authority (NYSERDA) and the Department of Energy (DOE) on Spent Nuclear Fuel located at the Western New York Nuclear Service Center, and the DOE/Navy/State of Idaho Consent Order/Settlement Agreement on Spent Fuel and Nuclear Waste.

The agreement between NYSERDA and DOE allows DOE to use the Fuel Receiving and Storage Area (FRS) to store, pending removal, the spent nuclear fuel to which DOE had taken title from the previous site operator, Nuclear Fuel Services (NFS).

The DOE/Navy/ID Consent Order: Court Order Civil No 91-0035-8-EJL conditionally reopens the Idaho National Engineering and Environmental Laboratory (INEEL) to receive West Valley SNF, until an interim storage facility or permanent repository is opened accepting spent fuel from INEEL. DOE will ship all West Valley SNF to INEEL. This agreement resulted in EM issuing the "National SNF Interim Storage Plan" which states that West Valley SNF was to be shipped to INEEL in the year 2001.

### **SPENT NUCLEAR FUEL SHIPPING PROJECT**

On October 18, 2001, the Assistant Secretary of Environmental Management determined that it would be in the best interest of the government to delay shipment of the two casks loaded with spent fuel from West Valley to Idaho so that DOE can focus its attention on their commitment to ship stored TRU waste from INEEL to Waste Isolation Pilot Plant (WIPP).

After evaluating various alternatives, WVNSCO developed a plan for on-site staging of the casks, which will remain in their current location until a decision is made regarding shipment.

The shipping casks have been sampled, resealed, leak-tested, and backfilled with nitrogen to atmospheric pressure. This completes all physical work on the casks to ensure their continued integrity while staged for shipment to INEEL.

## **FUEL RECEIVING AND STORAGE (FRS) AREA DECONTAMINATION PROJECT**

<b>MILESTONES</b>			
Description	Schedule	Complete	Status
<b>FC-2: REMOVE AND PACKAGE THE EMPTY SPENT FUEL STORAGE CANISTERS</b>			
FC-2 Remove the 147 empty spent fuel storage canisters from the pool and package for disposal.	12/31/01	12/21/01	
<b>FC-5: REMOVE AND PACKAGE THE FUEL STORAGE RACKS.</b>	04/15/02	04/15/02	
<b>FC-6: REMOVE EQUIPMENT IN THE CASK UNLOADING POOL (CUP) AND PACKAGE FOR DISPOSAL.</b>	05/30/02	05/29/02	
<b>FRS-1: INITIATE LOWERING FUEL STORAGE AND CASK UNLOADING POOL LEVEL</b>	09/30/02		On Schedule

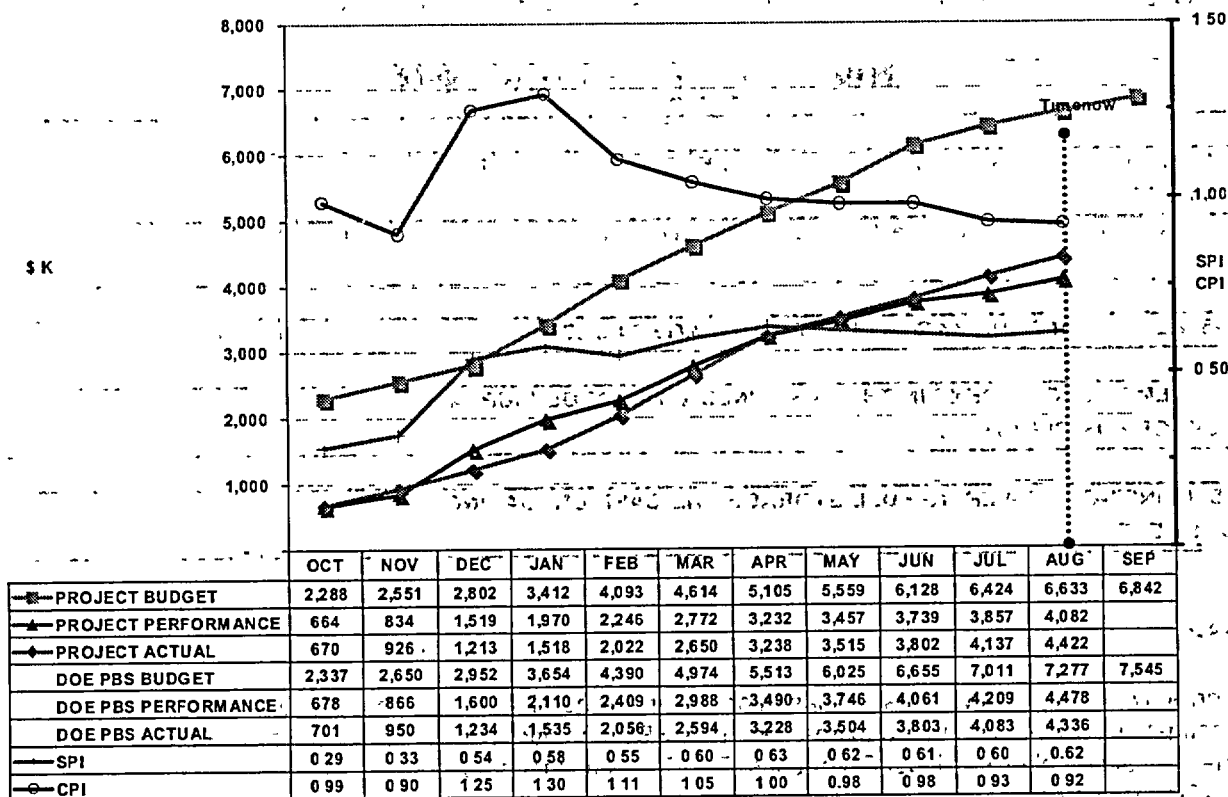
### **FRS-1:**

A corrective action plan was issued based on the final report by the independent review team on their investigation into the unplanned exposures in the FRS. Additional briefings were conducted to discuss the corrective action plan with D&D Operations, Rad Protection technicians and engineers assigned to the FRS Decon Project.

The swing arm was removed from the canal between the FRS and the PMC to the rail area and is ready for size reduction and disposal. Plexiglass was removed from the South aisle in preparation for decontamination of the pool walls along the South aisle. The demineralizer was relocated from the fuel pool to the CUP and filled with fresh ion exchange resin/zeolite. The demineralizer was put back on-line in a recirculation mode back to the fuel pool.

WVNSCO performed a management self-assessment of our readiness to begin transfer of treated pool water from the FRS to the interceptor on August 28, 2002. On August 29, 2002, all four prestart open items were completed. Draining of the pool to the interceptor was initiated on August 30, 2002.

PBS 3 - (OH-WV-03/LT) SPENT NUCLEAR FUEL



## PBS OH-WV-03LT Assessment/Actions

PBS-OH-WV-03LT has a negative schedule variance, which is due to the delay in shipping the Spent Nuclear Fuel to JNEEL.

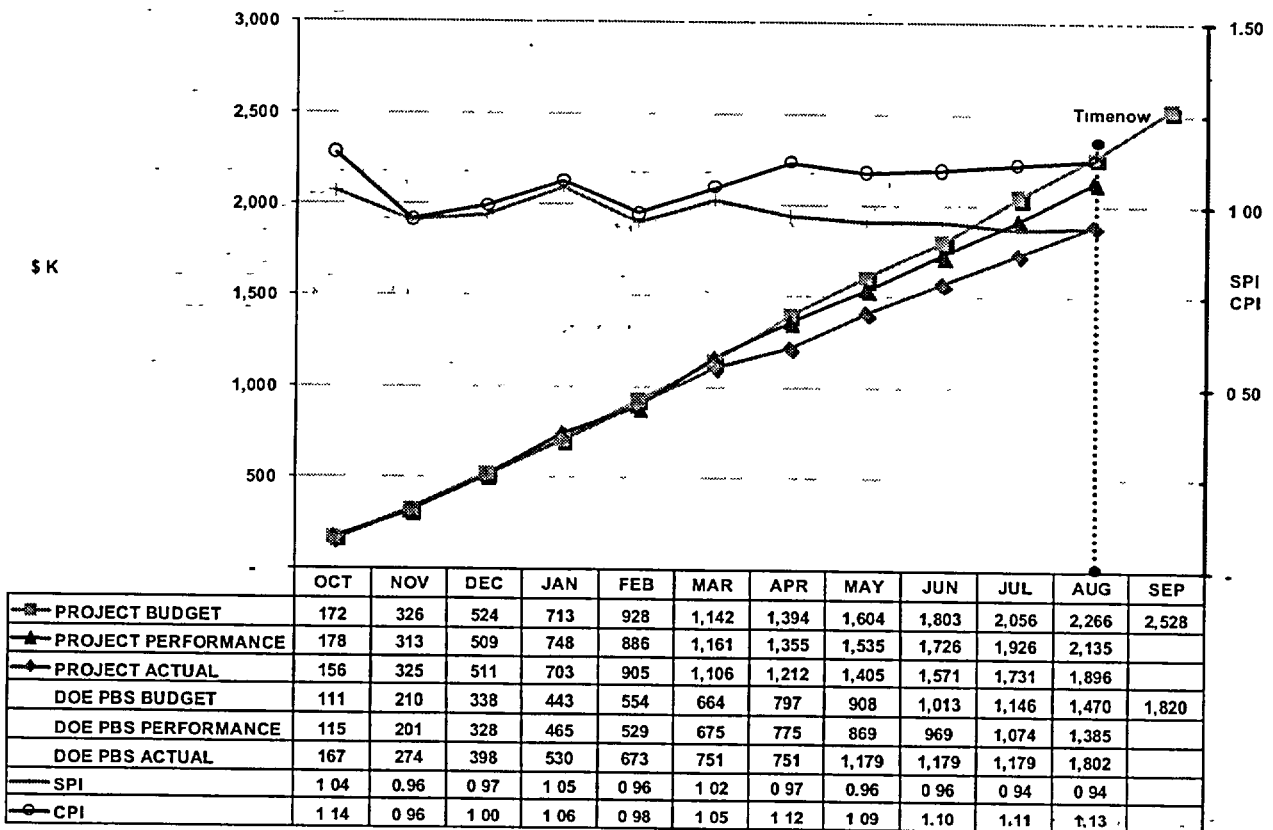
PBS-OH-WV-03LT has a negligible cost variance through August. The slight increase was due to additional labor necessary to complete the helium leak testing and gas sampling on the SNF casks. Additional labor support was utilized to correct the SNF pool water clarity and swing arm removal due to interferences and size reduction issues.

At the end of August, performance to date is 97% of work planned, 60% of work performed and 65% of work costed.

## PBS OH-WV-SS-D: Safeguards and Security

**PBS OH-WV-SS-D Scope** -The West Valley Demonstration Project (WVDP) Safeguards and Security mission is to provide general security, physical security, and cyber-security for all site operations covered as part of PBS OH-WV-01, Vitrification and High Activity Waste Processing, PBS OH-WV-02, Site Transition, Decommissioning and Project Completion, and PBS OH-WV-03, Spent Nuclear Fuel. General security, in accordance with applicable DOE Standards and regulations, is executed through operation of protective security forces. Physical security is provided using a comprehensive lock and key system, remote closed circuit television (CCTV), alarm monitoring, area fencing and barrier protection. Cyber-security efforts ensure that all DOE unclassified information resources are protected against possible threats.

(OH-WV-SS-D) SAFEGUARDS AND SECURITY

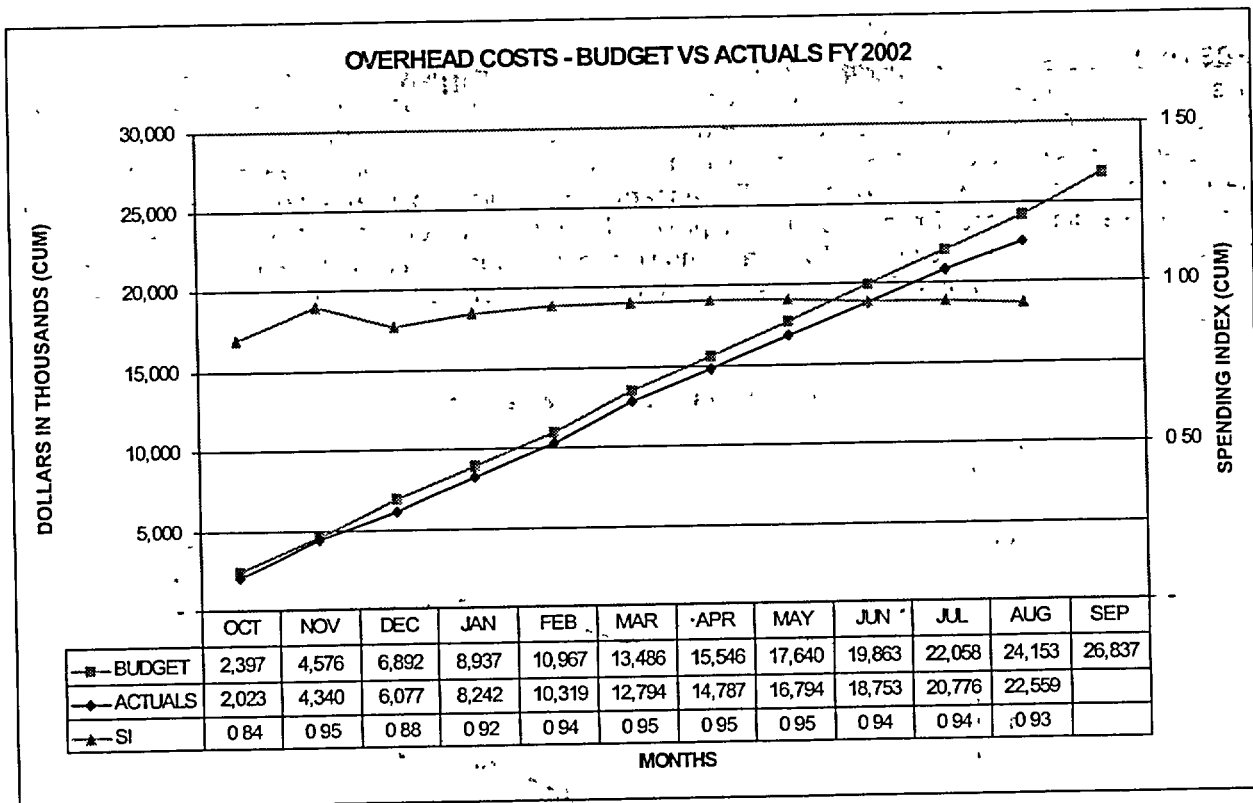


### PBS OH-WV-SS-D Assessments/Actions

Safeguards and Security has a negligible cost and schedule variance through August.

At the end of August, performance to date is 90% of work planned, 84% of work performed and 75% of work costed.

## Overhead/Administrative



### Assessment/Actions

**Assessment:** The underrun in the overhead accounts has increased from \$1282K to \$1594K during August and continues to be attributable to restricted spending as a result of internalizing the reduced appropriation for FY2002. Spending in some areas has increased but remains well within approved spending guidelines. Although the overhead budget currently has a positive variance, WVNSCO continues to experience an overrun in cost of labor of the indirect employees. The negative variance in labor has begun to decrease slightly as a result of the recent employee separation programs. The direct labor system costs overhead at a rate based on an estimate at completion (EAC) of \$23.5 Million.

**Actions:** Spending and placement of orders has been carefully monitored. This will continue throughout the year to manage spending within the overall budget.

## ADMINISTRATIVE

Project personnel as of August 31, 2002

	<u>Mgt</u>	<u>Prof</u>	<u>NE</u>	<u>Hourly</u>	<u>Total</u>
WVNSCO On Board <sup>1</sup>	74	182	116	131	503
Contract Guard	0	0	0	23	23
URS Corporation <sup>2</sup>	6	27	0	0	33
<b>Project Total:</b>	80	209	116	154	559

### EEO Statistics:

	<u>Mgt</u>	<u>Prof</u>	<u>NE</u>	<u>Hourly</u>	<u>Total</u>
Minority (Included in WVNSCO Total)	9	16	6	8	39
Female (Included in WVNSCO Total)	11	52	70	17	150

<sup>1</sup> On Board total excludes 6 casuals

<sup>2</sup> Includes URS Corporation (formerly Dames and Moore) located on WVDP and AOC premises.

Total positions will not equal budgeted positions due to monthly transitioning of replacement requisitions

## Total Project Earned Value Report

ITEM	CURRENT PERIOD					FISCAL YEAR-TO-DATE					FY 2002 BAC
	BCWS Sched	BCWP Complete	ACWP Spent	SV Sched	CV Cost	BCWS Sched	BCWP Complete	ACWP Spent	SV Sched	CV Cost	
PBS 01 - HLW VIT & HIGH ACTIVITY PROCESSING	1,611	1,579	1,245	(32)	334	20,211	20,526	18,573	315	1,953	22,061
PBS 02 - SITE TRANSITION, DECOMMISSIONING & PROJECT COMPLETION	6,195	5,978	5,148	(217)	830	57,540	56,285	50,143	(1,255)	6,142	66,379
PBS 03 - SPENT NUCLEAR FUEL	209	225	286	16	(61)	6,633	4,082	4,423	(2,551)	(341)	6,842
SAFEGUARDS & SECURITY	210	208	164	(2)	44	2,266	2,134	1,895	(132)	239	2,528
PMB	8,225	7,990	6,843	(235)	1,147	86,650	83,027	75,034	(3,623)	7,993	97,810
Undistributed Budget											
Administrative	25	35	32	10	3	167	184	168	17	16	506
WVNS MR											1,518
<b>TOTAL WVNS</b>	<b>8,250</b>	<b>8,025</b>	<b>6,875</b>	<b>(225)</b>	<b>1,150</b>	<b>86,817</b>	<b>83,211</b>	<b>75,202</b>	<b>(3,606)</b>	<b>8,009</b>	<b>99,834</b>
DOE Obligations/Expense	195	18	18	(177)	-	960	1,057	1,057	97	-	1,976
Fee/Credit/Other	836	581	581	(255)	-	9,364	7,669	7,669	(1,695)	-	10,200
DOE MR	-	-	-	-	-	-	-	-	-	-	1,829
Non Project	2	3	3	1	-	23	23	32	-	-	25
<b>SA</b>	<b>1,033</b>	<b>602</b>	<b>602</b>	<b>(431)</b>	<b>-</b>	<b>10,347</b>	<b>8,749</b>	<b>8,757</b>	<b>(1,598)</b>	<b>-</b>	<b>14,030</b>
<b>FY 2002 TOTAL WVDP</b>	<b>9,283</b>	<b>8,627</b>	<b>7,477</b>	<b>(656)</b>	<b>1,150</b>	<b>97,164</b>	<b>91,960</b>	<b>83,959</b>	<b>(5,204)</b>	<b>8,009</b>	<b>113,864</b>

**Notes:**

All entries in thousands of dollars - sum of the parts may vary from total due to rounding.  
DOE Obligations/Exp(Noncontract PBS Costs) reported are as of August

### 3 Year Budget Plan

Project Budget	Prior	FY2002	FY 2003	FY 2004
PBS 1 High-Level Waste Processing	-	22,061	-	-
PBS 2 Transition & Project Completion	-	66,379	-	-
PBS 3 Spent Nuclear Fuel	-	6,842	3,600	-
PBS 4 Project Management & Support	-	-	-	-
PBS 5 Decontamination of Project Facilities	-	-	24,540	24,600
PBS 6 Waste Management	-	-	27,600	27,800
PBS 7 Safe Site Operations	-	-	34,260	37,240
PBS 8 Decommissioning/Project Completion	-	-	-	-
PBS SS-D Safeguards and Security	-	2,528	2,210	2,570
Prior - WBS	1,641,231	-	-	-
PMB Line	1,641,231	97,810	92,210	92,210
Undistributed Budget	-	-	-	-
WVNS Mgmt. Reserve	-	1,518	-	-
Contract Budget Base	1,641,231	99,328	92,210	92,210
Administrative	-	506	-	-
DOE Obligations to Other Sites/Expense	69,568	1,976	-	-
Fee/Credit	172,673	10,200	-	-
DOE Mgmt. Reserve	-	1,829	-	-
Relocation	1,179	-	-	-
Non Project	53	25	-	-
TOTAL TPCE (YOE)	1,884,704	113,864	92,210	92,210
Project Funding Sources	Prior	FY2002	FY 2003	FY 2004
Dept. of Energy YOE (PBS)	1,692,586	91,395	92,210	92,210
Dept. of Energy YOE (OTHER)	1,831	2,063	-	-
Dept. of Energy C/O	8,653	-	-	-
Dept. of Energy C/O (Other)	521	-	-	-
N.Y. State Funding	149,447	9,462	9,846	9,846
Supplem'l NYS (17% EIS)	5,346	350	-	-
Uncosted NYS Funding	776	-	-	-
NYS Credit Serv	33,949	700	-	-
Non Project	53	25	-	-
TOTAL PROJECT (YOE)	1,893,109	103,995	102,056	102,056

**Assumptions:**

Project Budget/Funding is comprised of DOE and NY components  
FY02 reflects programmatic changes consistent with the reduced appropriation  
FY03 consistent with President's Budget Request  
FY04 budget level subject to decisions made during FY04 Budget Formulation  
effort currently on-going and contain no Cleanup Reform Account Funds

**Notes:**

\$200K has been added to DOE Obligations to account for the FY02 S AIC commitment  
All entries in thousands of dollars - sum of the parts  
may vary from total due to rounding.



# WEST VALLEY DEMONSTRATION PROJECT FINANCIAL REPORT FISCAL YEAR 2002

Reporting Period

August 2002

Contract Number DE-AC24-81NE44139

Dollars expressed in thousands

PBS / Title	Prior Years Uncosted (C/O)	FY 2002 BA	BA to Date	FY 2002 Costs to Date	Uncosted Obligations
OH-WV-01 HLW Vit & HAW Processing	1,939	19,250	21,189	18,721	2,468
OH-WV-02 Site Transition, Decommission & Proj Comp	3,116	57,100	60,216	46,540	13,677
OH-WV-03 Spent Nuclear Fuel	2,178	6,085	8,263	4,336	3,926
<b>SUBTOTAL WVNS EX05/EX02 CONTRACT</b>	<b>7,233</b>	<b>82,435</b>	<b>89,668</b>	<b>69,597</b>	<b>20,071</b>
OH-WV-SSD Safeguards & Security(FS30)**	3	1,820	1,823	1,802	21
OHIO OFFICE OBLIGATIONS ***	428	1,173	1,602	1,057	545
<b>TOTAL OHIO OFFICE</b>	<b>7,664</b>	<b>85,428</b>	<b>93,093</b>	<b>72,456</b>	<b>20,637</b>
<b>OTHER DOE OBLIGATIONS ***</b>	<b>93</b>	<b>0</b>	<b>93</b>	<b>0</b>	<b>93</b>
<b>EX05 PROJECT OBLIGATED FUNDS</b>	<b>7,757</b>	<b>85,428</b>	<b>93,186</b>	<b>72,456</b>	<b>20,730</b>
Unobligated Funds	0	5,967	5,967	0	5,967
<b>TOTAL EX05/EX02/FS30 PROJECT FUNDING FY02</b>	<b>7,757</b>	<b>91,395</b>	<b>99,152</b>	<b>72,456</b>	<b>26,697</b>
Non EX-05/EX02/FS30 Funding ***	1,416	1,990	3,406	1,596	1,810
<b>TOTAL DOE</b>	<b>9,173</b>	<b>93,385</b>	<b>102,558</b>	<b>74,052</b>	<b>28,507</b>
NYSERDA NE Project (SDA Share)	0	0	0	0	0
NYSERDA NE Proj (EIS Share) + Fee	61	350	411	273	138
NYSERDA NS Project + Fee	156	9,729	9,885	9,500	385
NYSERDA Credit	0	700	700	642	58
NYSERDA NY Non-Project + Fee	0	25	25	35	(10)
<b>TOTAL WVDP</b>	<b>9,390</b>	<b>104,189</b>	<b>113,579</b>	<b>84,502</b>	<b>29,078</b>

\*\*\* See next page for individual breakdown of DOE obligations and Non EX-05/EX-02/FS30 Funding.

WEST VALLEY DEMONSTRATION PROJECT FINANCIAL REPORT  
FISCAL YEAR 2002

DOE Obligations and Non EX05 Funding Breakout

Contract Number DE-AC24-81NE44139

Dollars expressed in thousands.

Reporting Period

August 2002

DOE Obligations & Expense	Prior Years	FY 2002	BA	FY 2002	
	Uncosted (C/O)	BA	to Date	Costs to Date	Uncosted Obligations
DOE Obligation Ohio (SAIC) (PBS OH-WV-02)	84	0	84	84	0
DOE Obligation Ohio (SAIC) (PBS OH-WV-02)	9	0	9	0	9
DOE Obligation Ecol & Envir (PBS OH-WV-02)	0	0	0	(1)	1
DOE Obligation Army COE (PBS OH-WV-02)	6	0	6	0	6
DOE Obligation Envirocare (PBS OH-WV-02LT)	18	143	161	100	61
DOE Obligation Battelle (PBS OH-WV-02LT)	246	387	633	495	138
DOE Obligation SAIC (PBS OH-WV-02LT)	0	44	44	0	44
DOE Obligation SAIC (PBS OH-WV-02LT)	0	400	400	333	67
DOE Obligation (PBS OH-WV-03LT)	0	25	25	3	22
DOE M&E Expense Total (OH)	66	174	240	44	196
DOE OHIO OFFICE OBLIGATIONS	428	1,173	1,602	1,057	545
DOE Obligation Battelle PNNL (RL) (PBS OH-WV-01)	93	0	93	0	93
OTHER DOE OBLIGATIONS	93	0	93	0	93
<b>Non EX 05/EX 02/FS 30 Funding</b>					
SR work Authorization	10	0	10	0	10
DOE OH D&D Proj Mgrs Mtg	14	0	14	4	10
ASTD Projects: VEMP OH09WT41	0	0	0	0	0
ASTD Projects Waste Retrieval OH00WT22	226	615	841	277	564
Permeable Treatment Wall OH00SS31	123	0	123	40	83
In Situ Characterization OH01WT11	44	0	44	44	0
VEMP Equipment/Encapsulation OH00WT31	156	295	451	171	280
Large Scale D&D OH01DD11	650	650	1,300	253	1,047
DOE Prog & Prg Mgmt Manual	48	358	406	173	233
Cyber Security	7	0	7	2	4
Headquarters	111	0	111	0	111
Sick Workers Comp Act	28	(13)	15	11	4
National Spent Nuclear Fuel Program	0	85	85	0	85
EIS Credits	0	0	0	80	(80)
Undistributed Costs	0	0	0	542	0
Non EX05 Funding Total	1,416	1,990	3,406	1,596	2,352